Original Article

Major Consequences, Determinants and Obstetrical Outcomes of Unintended Pregnancy

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ABSTRACT

Objective: We aimed to study frequency, determinants and obstetrical outcome of unintended pregnancy.
Study Design: Cross sectional study
Place and Duration of Study: Gynecology and Obstetrics department, during May 2017 to October 2017.
Materials and Methods: This study was conducted at the Department of Gynecology and Obstetrics, PUMHS Nawabshah SBA from May to October 2017.
Materials and Methods: All pregnant women carrying singleton pregnancy of more than 28 weeks gestation were eligible while women with multiple pregnancy, alcoholics, smokers, and chronic diseases were excluded from the study. Determinants of un-intended pregnancy socio demographic variables as maternal age, educational and economic status, age at marriage, pregnancy related variables as gestational age in weeks, parity, birth interval, booking status, antenatal services and prenatal outcome as preterm birth, low birth weight, stillbirth were recorded.
Results: Unintended pregnancy was reported by 47% of women in our study. The following variables shows positive association with unintended pregnancy as maternal aged between 20-40 years, mostly with low education, having more than two births, birth interval less than 12 months, belongs to poor socio economic status, age at marriage less than 20 years, delayed prenatal care, belongs to rural areas while common prenatal outcome observe preterm birth and low birth weight.
Conclusion: This study concluded high percentage of unintended pregnancy with substantial negative consequences for women and her child, thus signifying need for effective and directed sex education and family planning facilities.

Key Words: Frequency, determinant, obstetrical outcome.

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INTRODUCTION

Unintended pregnancy is a significant issue in public health. An unintended pregnancy can be described as either unwanted or ill-timed pregnancy. Existing population of world is seven billion and developing countries account for its 97%. About 210 million conceptions annually occur worldwide and 75 to 80 million of these are knowledgeable to be unintended. Unintended pregnancy is a centralmodel that is used to better know the rate of birth in a population and the unmet need for contraceptive method acting (birth ascendance) and family planning[2,3].

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Unintended pregnancy is related with social and financial burden and maternal behaviors such as smoking, alcohol consumption and late beginning of prenatal care. Consequences of unintended pregnancy mainly from, not using contraception or unpredictable use of effective birth control device methods [3]. Without the use of contraceptive during sexual activity, improper use of contraceptive method and failure of the method chosen are contributing factors of unintended pregnancy [4]. The major consequences of unintended pregnancy are abortion, 88% of pregnancies ending in induced abortion due to unwanted pregnancy or contraceptive failure. Rate of unintended pregnancies seems to be ascending, as shown by recent study conducted by population council (a non-government organization) according to that, unintentional pregnancy rate increased between 2002 and 2012 from 71 to 93 per1000 women aged 15-49 (38%-46%respectively). In 2012, out of nine million pregnancies,4.2 million were noted as unintended in Pakistan, including 54 % cases of induced abortion and 34% in unplanned births. The risk ratio of death in developing countries in comparison with developed countries is 25-250 times greater for a woman who undergoes an unsafe abortion. Major factors predicting unsafe abortions are structure of family, spacing in birth, socio economical status, mother well being, dearth, unemployment of spouse,

waged or working women, conflicts with spouse and so many others. Ample research work has been done on abortion as one of the complications of unintended pregnancy so we aimed to study determinants and other adversefeto-maternal outcomes of unintended pregnancy.

MATERIALS AND METHODS

This was a cross-sectional study, conducted in the Gynecology and Obstetrics Department Unit I PUMHS, Nawabshah, during May to October 2017. After the ethical review committee of PUMHS approved permission was taken and written informed consent was gained from all the applicants. All women having singleton pregnancies with gestational age above 28 weeks were recruited, the ladies having established obstetrical complications like obstructed labor, eclampsia and persistent illness, cigarette smoker, alcoholics, multiple gestations, left out from study. All the demographic and other data was collected on a proforma designed for the study including socio demographic variables, factors related with reproductive health, contraceptive history and measure of unintended pregnancy. The intension of pregnancy was checked by LMUP. The LMUP comprising of six questions, each of which asses different features of moods and events precede to pregnancy (as stopping use of contraceptive, conversing pregnancy with spouse and health behavior changes prior to getting pregnant). Each variable scored as 0, 1, 2 and score summed to attain a combined score between 0 and 12. Pregnancies then categorized as unplanned (score 0-3), ambivalent (4-9) or planned (10-12). Women with score less than 10 (ambivalent and unplanned) were well-thought-out as unintended.

RESULTS

We observed a total 2480 pregnancies having mean gestational age of 30 weeks. Overall unintended pregnancies were1166(47%), out of them unplanned were670(57.4%) and 496(42.5%)were ambivalent, and remaining were intended. The majority 672 (57.6%) of women were having age between 20-40 years. More than half 792(67.9%) were from to rural population and about half of these were illiterate and belong to poor socioeconomic class. 54.8% of these had age less than 20 years at the time of marriage and majority728(62.4%) having birth interval < one year. Over all 85.3% cases had knowledge about at least one of the contraceptive method but 33.8% of women described using them. Among modern method of contraception,96% had knowledge of pills,90% condoms, 94% IUDS,96% injectable, 84% implants, female sterilization 70%,male sterilization 54%, while among traditional method, knowledge about rhythm and withdraw method account for 12% and45% respectively, whereas use of contraception reported to be low for condoms 24 %, pills 11%, injection 15%, IUD5.2 %, implants 8.8% while rhythm and withdraw

Table No. I: The London Measure of Unplanned Pregnancy (LMUP) Questions

Variable	Answer	Score
At the time of conception	Always use contraception	0
	Inconsistently used contraception	1
	Not use contraception	2
In terms of becoming a mother	Wrong time	0
	An OK time but not quite right	1
	Right time	2
Just before falling pregnant	Not intend to become pregnant	0
	Did not mind either way	1
	Intend to get pregnant	2
Just before falling pregnant	No want for a baby	0
	Have mixed feeling about having a baby	1
	Want a baby	2
Before falling pregnant had you and your partner	Never discussed children	0
	Discussed children but no firm agreement	1
	Agreed to pregnancy	2
Health actions before falling pregnant	No action	0
	1 action	1
	2 or more actions	2

Table No.2: Clinical and Demographic Data

Variable	Description	Number (%)
Pregnancy intention	Unintended (score <10)	1166 (47%)
	Intended (score >10)	1314 (52.98%)
Wealth index / socio economic status	Poor	550 (47%)
	Middle	230 (19.7%)
	High	386 (33%)
History of miscarriage / abortion	Yes	628 (53.8%)
	No	538 (46%)
Parity	>2	820(70.3%)
	<2	346 (29.6%)
Gestational age	28-34 weeks	725 (62%)
	34-37 weeks	252 (21%)
	>37 weeks	189 (16%)
Maternal age	<20 years	212 (18%)
	20-40 years	672 (57.6%)
	>40 years	282 (24%)
Area of residency	Rural	792 (67.9%)
	Urban	374 (32%)
Educational status	Illiterate	580(49.7%)
	Primary	120 (10.2%)
	Middle	105(9%)
	Matric	124 (10.6%)
	Intermediate	110(9.4%)
	Graduation	127(10.8%)
Age at time of marriage	<20	640(54.8%)
	>20	526 (45.1%)
Birth interval	<12 month	728 (62.4%)
	>12 month	438 (37.5%)
Knowledge about family planning method	Yes	995(85.3%)
	No	171 (14.6%)
Ever used	Yes	395 (33.8%)
	No	771 (66%)

method reported 4.9% and30%respectively.Familiarity about emergency contraception was 20% and only 18% had ever used it. Our study showed that only 15% of women with unintended pregnancy received 4 antenatal visits while only 33% received single antenatal visit. As far as perinatal outcome is concern preterm birth accounts for 10.5% of pregnancies, LBW 5.6% while neonatal death was recorded in 0.5% of cases.

DISCUSSION

The frequency of unintended pregnancyis48% in our study which is higher than the documented global prevalence[1], the previous literature shows 16% and 24% in PDHS 2006 and 2013[2,3], comparable to study conducted by Sethar et al (46%)[4]these studies used a dichotomous scale where as we used six item LMUP[5,6,7]. The prevalence of unintended pregnancy indicated by various studies from Ethiopia (23.5%)[8], Sudan(30.2%)[9],Iran (33.7%)[10],Kenya(24%)[11],Nepal (26-38%)[12] Tanzania (45.9%)[13]but lower than study by Papua New Guinea (49.4%)[14], Ghana(70%)[15]. We observe that unintended pregnancy have an association with age between 20-40 years comparable to study by Ethiopia that shows 67% of study population between 25-34 years[8]same finding was observed in other studies also[16] while studies from Papua New Guinea[14], Kenyan[11],Tanzanian[13], reported the chances of unintended pregnancy in age less than 20 years. PDHS 2012-2013[3]cleared that gap between total wanted fertility and observed fertility rate is high in the rural areas (1.1 in rural and 0.8 in urban areas)as we indicate that the risk of unintended pregnancy is common in rural are as which is supported by the study of Lamina MA[17]. Education has a key role in prevention of unintended pregnancy, since schooling increases autonomy and decision making and increases economic independence. Each additional year of education means a 10% reduction in fertility, subsequent increase in contraception uptake (Presler–Marshal and Jones 2012). The illiterate women even may not recognize that they are pregnant until it has become too late, and they may not be able to negotiate with their partners with regards to safe sex, thus prone to have unintended pregnancy more comparatively.

As shown in our study, education score is poor (around 50%),unintended pregnancy frequency high (47%) also supported by other studies women who are unschooled were more likely to have unintended pregnancy[18, 19, 20].

Older women generally have achieved desired family size therefore more likely than the younger ones to report the current pregnancy as unintended as seen in study conducted in Pakistan[16], that unintended pregnancy found to be common among women with more than two kids, also seen in our study, women with parity more than two account for 62% of total unintended pregnancies comparable to other studies[14,15,19,21], birth interval less than 12 years reported to be more common in our study (62%), also supported by studies [14,23,24]. Our study found that contraception knowledge is common but use is very low. Only 34 % of women with unintended pregnancy use contraception. Risk of unintended pregnancy found to be double in women who never use contraception as compared to current users as it is consistent with the literature[11, 14,25,and 26]. Pregnancy intention seems to be affecting maternal desire of receiving maternal health services, women who are not intending to be pregnant may not recognize the symptom of pregnancy, in fact not be in optimal health for childbearing, as missed preconception care (which is known to reduce certain issue such as spina bifida) and are more likely to delay in seeking antenatal care, so less support for practicing healthy behavior such as quit smoking, alcohol cessation, and thus less preparation of parenthood, as seen in our study that only 15% of women receive antenatal care services more than 4 times and only 33% receive single antenatal service. This was also supported by study in Bangladesh [25]and Dibaba Y et al[26]. In our study low birth weight was associated with early denial of pregnancy, as found in 5.6% of unintended pregnancy in our study, comparable to study by Mohlajee, APMPH et al (5.9%)[29]and by Hultin (5.6%)[30] while study by Morris (8.5%)[31] Joycee (7.6%)[32],Dourousseau(2.6%)[33]and by Bitto(3%)[34], suggest that patient with early rejection of pregnancy have twice the risk of preterm labor we saw 10.5%of the women with unintended pregnancy had preterm birth nearer to study by pulley[35](11.6%), Messer[36] (11.3%), Mohllajee[29] (9.5%), Flower A[37],(8.16%),while seems to be more prevalent in study by Orr[38] (15.5%).

CONCLUSION

This study highlights increased burden of unintended pregnancy and low use of family planning services and this is the fact for whole Pakistan and other under development countries though the complete eradication of all unintended pregnancy is an unrealistic goal. However appreciable reduction in the number of unintended pregnancies would improve the wellbeing of future generation .The fact that industrialized countries like Pakistan suggest that progress in desired direction is a realistic and feasible goal.

Author's Contribution:

Concept & Design of Study:	Farida Wagan
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Revisiting Critically:	Farida Wagan
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